BY ORDER OF THE COMMANDER TRAVIS AIR FORCE BASE



TRAVIS AIR FORCE BASE INSTRUCTION 91-107 10 MARCH 2004

Safety

HANGAR PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFPD 91-2, *Safety Programs*, AFOSH STD 91-501, Air Force *Consolidated Occupational Safety Standard*, AFOSH STD 91-100, *Aircraft Flight line - Ground Operations and Activities*, and AFI 21-101_AMCSUP1, *Aerospace Equipment Maintenance -Management*. It provides guidelines and designates responsibility for training, qualification and documentation for personnel who operate or work around hangar doors, as well as outlining door signage requirements. This instruction pertains to all personnel assigned or attached to Travis Air Force Base.

SUMMARY OF REVISIONS

Paragraph 2.4. has been added to include mishap reporting procedures, and paragraph 5.7. has been modified to identify procedures for manual operation of hangar doors. A bar (|) indicates a revision from the previous edition.

1. Responsibilities.

- 1.1. Building custodians are responsible for ensuring hangar door serviceability in accordance with AFOSH STD 91-100.
 - 1.1.1. Ensure minimum signage requirements outlined in AFOSH STDS 91-100 and 91-501 are maintained
 - 1.1.2. Ensure DANGER sign is mounted next to all hangar door controls.
 - 1.1.2.1. Overall sign dimensions will be 7 inches by ten 10 inches. "DANGER" must be printed on top in 1 7/16 inch white lettering. Message below "DANGER" must contain the following statement using black lettering: "Only qualified personnel authorized by their squadron commander may operate hangar doors". The bottom of the sign must have reference to AFOSH STD 91-100, IAW AFOSH STD 91-100, Paragraph 7.2.3.4.

- 1.1.3. All areas that pose a potential pinch point or crush area must be marked to ensure no one enters the area during door operation.
 - 1.1.3.1. A 5 foot clear zone must be outlined on the floor with a 3 inch yellow and black striped line. The area inside the clear zone must have identical diagonal lines IAW AFOSH STD 91-501.
 - 1.1.3.2. All sides visible when approaching hazard area (5 feet. clear zone) must have a 14 inch by 20 inch "DANGER" sign painted on the floor just outside of the lined area IAW AFOSH STD 91-501 Chapter 21. The sign must be placed so that it can be read when approaching the hazard area. "DANGER" must be printed on top with 2 7/8 inch white lettering. The message below "DANGER" must contain the following statement: "HAZARDOUS AREA STAND CLEAR DURING DOOR OPERATION".
- 1.1.4. Directional arrows IAW AFOSH STD 91-100, must be present and understandable. Luminescent or reflective directional arrows will be placed adjacent to each switch and on horizontal sliding doors to indicate the direction of door travel for each corresponding switch.
- 1.1.5. Ensure hangars are kept clean with particular attention being paid to hangar doors, door stowage wells, and the areas immediately surrounding any surfaces and parts.
- 1.2. Quality Assurance will be the OPR for hangar door procedures. They will coordinate with Wing Safety and CE for outlining responsibilities and procedures for safe operation of hangar doors.
 - 1.2.1. CE will brief the 60 MSG/CC, 60 MXG/CC, and 60 AMW/CC monthly on hangar door maintenance discrepancies, repair status, and get-well date of inoperable hangar door systems.

2. Squadron Safety.

- 2.1. Will develop and maintain door operating checklists and post checklists at each hangar door control panel.
- 2.2. Print a G081 course code listing, or for units without G081 capability, develop and maintain a list of qualified/authorized hangar door operators for each squadron-owned hangar. Each list must be approved and signed by the squadron commander and posted on the hangar doors. Hangar door operator lists will be updated annually as a minimum or as required to maintain currency. No handwritten additions will be authorized.
 - 2.2.1. Contracted maintenance must be trained and on a list of qualified/authorized hangar door operators signed by the commander prior to door operation. This list must be posted on the hangar doors. A copy of each SQ/CC approved list must be sent to 60 MXG/QAS.
- 2.3. Ensure hangar door awareness training (to include pinch points) for all Maintenance Group personnel is briefed and documented on AF Form 55, **Employee Safety and Health Record.** Awareness training will be incorporated as part of Job Safety Training and briefed to newly assigned personnel.
- 2.4. In the event of a mishap during normal duty hours unit safety representative or designee will ensure that a copy of the 60 AMW Form 141, **Ground Mishap Worksheet** is completed and immediately faxed to MXQS, and MOC. After duty hours immediately fax 60 AMW Form 141 to MXQA and MOC. Immediately e-mail photographs to 60 MXG QA MEMBERS. <u>Do not fax</u>. In addition, all mishap findings will be left as found until cleared by MXQA/MXQS.

3. Maintenance Group and Squadron Training Offices.

- 3.1. Will jointly develop standardized hands-on OJT training program for all personnel who operate electric and manual hangar doors. Each training plan must be coordinated through CE prior to use. As a minimum, qualification training will include hangar door hazards, emergency procedures, and hangar door operations.
 - 3.1.1. Develop standardized awareness training for all personnel who work in hangar facilities but do not need to operate electric or manual hangar doors. As a minimum, awareness training will include hangar door hazards and emergency procedures.
 - 3.1.2. Trainers from the owning squadron of the hangar facility will provide all initial training. Squadron training will document annual hangar door operator training in GO81 for maintenance personnel. Each hangar on base has been assigned a local GO81 course code as follows:

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TRAV 000808 - Hangar 808
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TRAV 000809 - Hangar 809

TRAV 000810 - Hangar 810

TRAV 000811 - Hangar 811

TRAV 000818 - Hangar 818

TRAV 000014 - Hangar 14

TRAV 000839 - Non-powered hangar door operation for hangars 839, 840, 841, 842, 843, 844, 845, and 847

3.1.3. Squadron training will ensure all hangar door operators' training is documented on AF Form 797, **Job Qualification Standard Continuation/Command JQS** for all personnel trained/qualified as hangar door operators **not tracked in GO81**.

4. Hangar Door Operators.

- 4.1. A current list of all authorized hangar door operators must be posted on the hangar doors being operated.
- 4.2. Hangar door operators will be familiar with procedures outlined in AFOSH STD 91-100, Chapter 7.
- 4.3. Doors must be operated IAW local checklist posted on the hangar doors being operated.

5. Hangar requirements.

5.1. Hangar owning squadrons are listed below

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60 AMXS – 818, 841
60 EMS – 809, 810, 811, 845
60 CMS – P-14, 842, 843, 844, 808
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60 SUPS – 839, 840 660 AMXS – 847

- 5.2. A red line that extends 3 feet beyond the inside and outside of doors, 6 inches wide, must be painted and stenciled with the words "Hangar Door Full Open" across tracks and be visible from both inside and outside of hangar doors. This line will indicate where the doors must be positioned prior to towing aircraft. Additionally, paint red lines 6 inches wide 5 feet either side of door center to indicate minimum open width.
- 5.3. When fire suppression system is inoperable post the current status of the hangar fire suppression system on the fire suppression system control panel and on the outside of each main hangar door.
- 5.4. Maintain a hangaring checklist LCL60AMXS-007, *Towing Aircraft into or out of Hangars*, for hangars 809, 810 South, 811, 818 North and South which addresses preparation procedures for normal tows. Package hangaring checklist with aircraft towing checklist to ensure availability.
- 5.5. Emergency extraction tows for hangars 14, 808, 809, 810, 811, and 818 will be accomplished in accordance with the procedures posted in each hangar.
- 5.6. Crush/pinch hazard zones will be outlined and signs posted IAW AFOSH STD 91-501.
- 5.7. If any hangar door fails to operate due to an electrical/mechanical failure contact Civil Engineering operations management. The manual mode of operating hangar doors is to be used **only** by qualified personnel (Civil Engineering, or contractor) during routine maintenance or in the event of a facility ground emergency.
 - 5.7.1. Notify owning organization's Facility Manager with details of hangar door malfunction at earliest convenience.
- 6. Forms Adopted. Air Force Form 55, Employee Safety and Health Record, Air Force Form 797, Job Qualification Standard Continuation/Command JQS.
- 7. Forms Prescribed. 60 AMW Form 141, Ground Mishap Worksheet.

ALLARD R. CARNEY, Colonel, USAF Director of Wing Staff

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 91-2, Safety Programs

AFI 21-101 and AMCSUP1, Aerospace Equipment Maintenance Management

AFOSH STD 91-501, Air Force Consolidated Occupational Safety Standard